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ABSTRACT

The tentative guide in graphic arts technology for senior high schools is part of a series of industrial arts curriculum materials developed by the State of Louisiana. The course is designed to provide "hands-on" experience with tools and materials along with a study of the industrial processes in graphic arts technology. In addition, the student is also offered the opportunity to make tentative career decisions, analyze employment trends, and experience guidance in the various careers related to the graphic arts job family. The student has the opportunity to design, plan, and complete appropriate articles and learn of the careers related to those articles. The major units of the course are: graphic arts technology, graphic arts industry, publishing industry, labor-management, history of printing, relief printing, basic offset printing, intaglio printing, screen process, duplicators, photography, basic bindery, and paper. The outline format includes performance objectives and suggested activities for the major topics and subtopics. Suggested resources are provided for the implementation of the activities. Each resource is coded to match the list of resource materials that completes the document. (NJ)

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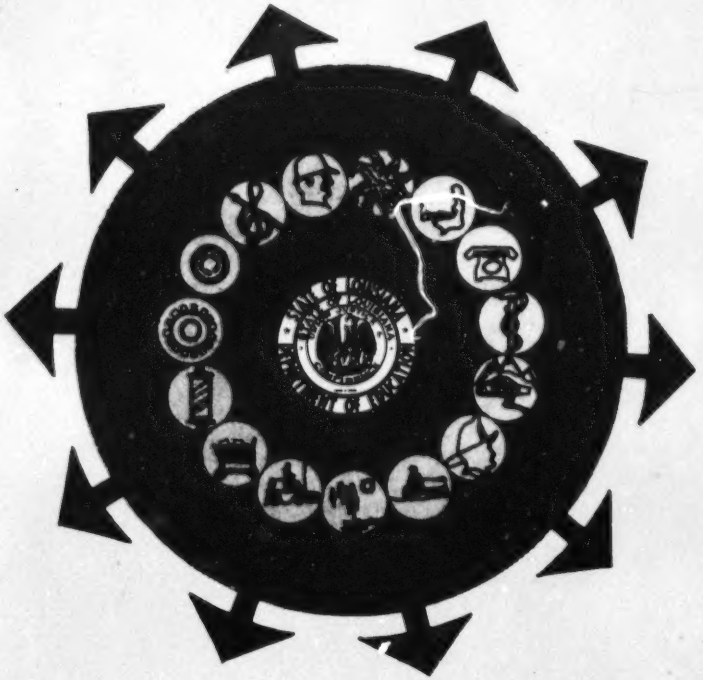

INDUSTRIAL ARTS CURRICULUM GUIDE

GRADES - 9-12

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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GRAPHIC ARTS TECHNOLOGY

Bulletin No. 1334

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CURRICULUM GUIDE

FOR

INDUSTRIAL ARTS

SECONDARY SCHOOLS

BULLETIN 1334

GRAPHIC ARTS TECHNOLOGY

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GRAPHIC ARTS TECHNOLOGY

Overview

In this course the student, through "hands on" experiences with tools and materials and the study of the industrial processes in graphic arts technology, will have had an opportunity to make tentative career decisions, analyze employment trends, and experience guidance in the various careers related to the graphic arts job family.

Special attention is given to helping students discover their technical abilities and interest in obtaining career information. Students have opportunity to design, plan and complete appropriate articles and learn of the careers related to those articles. Both individual and group educational experiences are encouraged. Students will use practical application of language arts, mathematics and science in solving meaningful problems. They will also use safe work habits and will participate actively in the operation and management of the graphic arts laboratory.

GRAPHIC ARTS TECHNOLOGY

Graphic Arts Technology

Graphic Arts Industry

Publishing Industry

Labor-Management

History of Printing

Relief Printing

Basic Offset Printing

Intaglio Printing

Screen Process

Duplicators

Photography

Basic Bindery

Paper

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
I. The Graphic Arts Industry	The student will be able to define the terms 'graphic arts' and 'printing'.	Discussion	
	The student will be able to identify the importance of printing and publishing by: (1) number of employees (2) value of product (3) number of establishments (4) total wages of employees	Discussion	(9) Ch. 2
A. Printing processes			
1. Relief printing	Student will be able to recall the principle, uses, advantages, and disadvantages of relief printing.	Discuss, Demonstration	(7) Ch. 1
		Tour of printing plants	(3) pp. XI-16
2. Lithography	Student will be able to list the principle, uses, advantages of lithography.	NOTE: Students do not qualify to operate equipment until safety has been demonstrated. Discuss, review and tested outlined later in the guide.	(11) p. 11-13
3. Intaglio	Student will be able to list the principle, uses, advantages, and disadvantages of Intaglio.		

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
4. Screen process	Student will be able to list the principle, uses, advantages, and disadvantages of screen printing.		
5. Duplicators	Student will be able to list the principle, and uses of the mimeograph, and spirit duplicators and office copying machines.		
B. Photography	Student will be able to define the role of photography in graphic arts, its principle and uses.	Discuss, Demonstration	
C. Bindery	Student will be able to define the role of binding in the graphic arts industry.	Discuss	
D. Papers	Student will be able to identify the role of the paper industry in the field of graphic arts.	Discuss	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
II. Publishing Industry A. Publishing	Student will be able to tell the importance of publishing in: (1) Education (2) Recreation (3) Religion (4) Occupation	Discussion - Resource Personnel	(10)
	Student will be able to identify different kinds of publishing: (1) Newspaper (2) Book (3) Periodical	Films - Research - Transparency	
	Student will be able to identify responsibilities designated to the publisher: (1) Printing (2) Copywriting (3) Advertising (4) Selling		

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
B. Career Opportunities	Student will be able to tell what developments led to economic outgrowth of publishing: (1) Modern Machinery (2) Advanced Techniques (a) Offset (b) Photo Copying	Discuss - Resource Personnel	(10)
	Student will be able to list career opportunities in publishing industry: (1) Publishers (2) Editors (3) Readers (4) Writers (5) Journeymen		(10)

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COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
III. Labor-Management	The student will be able to distinguish between labor and management personnel.	Instructor - Class discussion	(10)
A. How labor & management cooperate	The student will be able to list three ways that labor and management cooperate: (1) Training Programs (2) Safety Programs (3) Work Promotions	The instructor will have students discuss their concept of programs that promote better relationships.	
B. Causes of Disagreement	The student will be able to list four common causes of disagreements: (1) Rate of wages (2) Working conditions (3) Hours of work (4) Benefits	Class discussion	
C. How Arguments Are Settled	The student will be able to list three methods of settling arguments: (1) Negotiation (2) Arbitration (3) Strike	Explanation by instructor	
D. Joining A Union	The student will be able to define trade and list several trades that have union affiliations.	The instructor will have labor representatives give short talks to students.	

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COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
E. Management Responsibilities in Publishing	Student will be able to identify how the responsibilities in the publishing industry are divided: (1) Technical (2) Consumer (3) Occupational (4) Social	The instructor will have labor representatives give short talks to students.	

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COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
IV. History of Printing			
A. Earliest forms of recording events	Student will be able to list the methods of preserving history prior to the invention of printing.	Discussion, Reports	(9) Ch. 1 (4) Ch. 2
B. Development of Alphabet	Student will be able to outline how the alphabet evolved from its beginnings to present.	Discussion, Reports	(3) pp. 126-147
C. Development of movable type	Student will be able to summarize how metal types originated, early usages, and early type designs.	Discussion, Reports	
D. Development of Lithography, Intaglio, and Screen process	Student will be able to recall how these processes originated and have progressed.	Discussion, Reports	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
V. Relief Printing A. Block Printing			
1. Wood Block	Student will be able to recall the processes and application of wood block printing, and materials and equipment required.	Discussion, Illustrations Project Optional	Film (2) Ch. 10
2. Linoleum Block	Student will be able to: (1) list the uses of linoleum block as an art process. (2) list material and tools required and cost of each. (3) recall how image is placed on block prior to cutting. (4) recall safety procedures in cutting the block. (5) be able to cut a block using gauges and veining tools. (6) recall safety procedures in using the block or proof press. (7) ink and print the block.	Demonstrate - Discuss - Review - Test Safety	(11) 24-28

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COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
B. Printers Point System	Student will be able to define the point and pica and its relation to the inch.	Discussion	(3) Unit 17
C. Letterpress Printing			
1. Printers Type	Student will be able to list the kinds of type, its content, and use--foundry, wood, brass monotype, slug, and steel.	Discussion, Demonstration	(9) Ch. 3
	Student will be able to identify the major parts of a piece of type.	Discussion, Demonstration, Illustration	
	Student will be able to measure a piece of type.	Discussion	
	Student will be able to recall how type is sized, fonted, distributed, and priced.	Discussion	
	Student will be able to use the California Job Case and The Cap Case.	Discussion, Demonstration, Posters	(9) Ch. 4
* 2. Type Composition	Student will be able to recall the relationship of the spaces, quads, the uses of each and will be able to identify brass and copper thin spaces.	Discussion, Demonstration, Illustration	(9) Ch. 5 (3) Unit 7

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	Student will be able to recall the use, thickness of leads, slugs, and how purchased.	Discussion, Demonstration	(9) Ch. 6
	Student will be able to set composing stick to prescribed length and justify a line of type. Student will be able to center a line, set type flush left, set type flush right, and set straight matter.	Student will set exercises involving centering, flush left, flush right, and straight composition to prescribed length after demonstration of each by instructor. Each line should be checked for proper justification.	(3) Units 10-24
	Student will be able to dump the stick, place type in a galley, and tye type.	Student should observe instructor demonstration and perform the operations of dumping a stick, placing in galley, tying type and distributing type and leads and slugs. Student assigned a printing activity to be composed and carried through to completion.	
3. Proofing the type	Student will be able to recall and apply safety precautions in using the press. Student will be able to place galley with type on press, ink the type, and pull a proof.	Discussion, Demonstration, Review and Test Safety	(3) Units 25-32 (9) Ch. 8 (11) 24-28

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
4. Correcting the type	Student will be able to identify proof readers marks.	Discussion, Illustration	(3) Units 35-38 (9) Ch. 8
	Student will be able to recall which corrections can be made in the galley and which are made in the composing stick. Student will be able to make necessary corrections.	Lecture, Demonstration	
5. Locking the form	Student will be able to recall the use of furniture and reglets, how furniture is fonted, and materials of which furniture is made.	Discussion	(3) Units 50-55 (9) Ch. 14
	Student will be able to position a form in the chase for lock up.	Demonstration	
	Student will be able to lock up a form, plane a form, and check for loose or improperly justified line before lifting the chase.	Demonstration	
6. Press work	Student will be able to list content and types of inks used for letterpress work, and how to care for inks.	Discussion	(9) Ch. 16
	Student will be able to list		

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESCURCES
	and apply safe operating procedures for the platen press.	Discussion, Demonstration, Review, Test Safety	(11) pp. 24-28
	Student will be able to identify major parts of the platen press.	Discussion, Demonstration	
	Student will be able to: (1) place chase in press. (2) change the drawsheet, position guides (gauge pins), and adjust the impression. (3) feed the platen press (slow speed). (4) clean press and do normal maintenance. (5) unlock form, tye type on stone, and distribute furniture. (6) place tied forms in a galley.	Demonstration	
D. Thermography	Student will be able to recall the principle of thermography and its uses in printing.	Discussion, Demonstration	(2) Ch. 5
	Student will be able to recall safety procedures in thermography.	Discussion	
	Students will be able to apply	Demonstration	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	resin and heat the print the desired time.		
E. Rubber Stamp	Student will be able to recall safety procedures.	Discussion	
	Student will be able to set type, lock up and clean type for rubber stamp.	Discussion, Demonstration	(2) Ch. 5
	Student will be able to mold the matrix, mold the stamp gum, and assemble the stamp.	Student will make a stamp after instructor demonstration.	
F. Careers in Relief Printing	Student will be able to list the careers as: (1) composition (2) make up (3) press work (4) sales and service relative to relief printing	Discussion, Guests	Guidance Library (3) Units 119-120
VI. Basic Offset Printing			
A. Basic Copy Preparation	The student will be able to identify which type of printed material lends itself to being produced by the offset method of printing.	Discussion and Illustration	(4) Ch. 7

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	The student will be able to recognize the requirements for a good quality original to insure high quality reproduction; e.g. (1) Sharp clean crisp type faces (2) Clean white background (3) Easily read type styles (4) Design which is pleasing to the eye (5) Copy should have overall high contrast level; e.g. black on white The students will be able to identify the different types of camera ready copy; e.g. (1) Line copy (2) Halftone copy (3) Color copy	Discussion - Demonstration	
B. Basic Offset Photography	Student will be able to define camera ready copy. Student will be able to identify what type of material constitutes line copy, e.g.	Discussion, demonstration, illustration, audio visuals, student activity	(4) Ch. 8

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	(1) Proofs of printed type matter (2) Pen-ink drawings, maps, cartoons (3) Handlettering with pen-brush (4) Printed photographs which have already been screened by halftone process		
	Student will be able to recall the difference between line copy and halftone copy and be able to recognize each example.	Student will prepare, shoot and develop a line negative using all proper procedures as demonstrated by the instructor	(4)
	Student will be able to make reduction and enlargement calculations by the following methods: (1) Diagonal-line method (2) Formula method (3) Proportional-rule method (4) Slide rule method	Discussion, demonstration, Student Activity	
	Student will be able to recall the basic theory of graphic arts process photography.	Discussion	(4)
	Student will be able to list	Discussion, illustration	(4)

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	the different kinds of process cameras; e.g. Horizontal, vertical, overhead, low bed and gallery.		
	Student will be able to operate a process camera.	Demonstration	(4)
	Student will be able to use two kinds of process camera orthographic process film: e.g. Line Film and Halftone film.	Discussion	
	Students will be able to recall the basics concerning lens openings (f-stop)	Discussion	(4)
	Students will be able to identify the importance of proper exposure times.	Discussion	(4)
	Student will be able to properly mix photographic developing and fixing chemicals, both powdered and liquid concentrates.	Demonstration	
	Student will be able to list the procedure for taking a line negative with a typical darkroom camera.	Demonstration	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	Student will be able to develop, fix, and rinse a line negative using tray method of processing. Student will be able to explain that there is a mechanical means of processing graphic arts film.	Demonstration	
	Student will be able to list the hazards incurred when working in a darkroom, e.g. (1) Fumes (2) Harsh chemicals (3) Hot lights	Demonstration, discussion, review, test safety	(4) Ch. 8
C. Basic Stripping	Student will be able to define stripping. Student will be able to perform the proper stripping of negatives. Student will be able to list what materials are needed for negative stripping; e.g. (1) Stock for flat (2) Tape--Lithographic & clear	Discussion, demonstration, illustration, student activity-student will strip a negative on to a layout flat properly and accurately following all procedures as prescribed by the instructor.	(4) Ch. 12

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	(3) Light table (4) Razor knife (5) Straight edge--steel (6) Opaque solution brush Student will be able to strip a negative on to the layout flat properly. Student will be able to identify and apply sharp edged tools.	Demonstration	(11) p. 11
D. Basic Platemaking	Student will be able to list what materials offset plates are made of: (1) Paper (2) Metal (3) Plastic Student will be able to identify the characteristics of various offset plates: (1) Materials (2) Style of ends (3) Coatings (4) Areas Student will be able to explain the difference between image and clear areas of	Discussion, illustration Discuss, demonstration, illustration, student activity-student will expose and develop presensitized additive metal offset plate using all procedures as prescribed and demonstrated by the teacher during his lecture and demonstration.	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	plate. Student will be able to explain the difference between image and clear areas of plate. Student will be able to demonstrate the precautions to follow when handling, storing and moving unused plates. Student will be able to care for developed plates. Student will be able to recognize the different types of platemaking equipment, e.g. (1) Carbon Arc (2) Mercury Vapor (3) Tungsten Filament (4) Pulsed Xenon (5) Quartz Iodine Student will be able to list what materials are needed for proper development of offset plates. Student will be able to identify the main types of surface plates:		

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	(1) Direct Image (2) Presensitized Student will be able to make a test exposure on a plate to determine correct exposure time for that plate. Student will be able to expose and develop an offset plate. (Presensitized additive plate)		
E. Basic Offset Press Fundamentals	Student will be able to explain and safely operate and be familiar with general nomenclature of offset press work. Student will be able to identify the six main systems of offset press operation: (1) Dampening system (2) Inking system (3) Main printing system (4) Feeder (5) Register board and sheet controls (6) Delivery system Student will be able to identify the different makes and sizes of offset duplicator size presses from 10 x 13 to 15 x 18 size.	Discussion, demonstration, illustration, resource personnel, student activity--students will use a metal master on an offset press that they have set the feed on to reproduce ordinary quality copies. These activities should be done under the careful supervision of the instructor to insure the safety of the student and protection of the machinery.	Cogoli Safety

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	Student will be able to explain the advantages and disadvantages of the different makes of offset presses. Student will be able to adjust the feed on a press and properly feed sheets into a press-standard size 8½ x 11 and 8½ x 14. Student will be able to attach a plate and operate an offset press to produce ordinary quality reproductions.		
VII. Intaglio Printing			
A. Prepare simple design	The student will be able to draw the specific design for the job.	Students may choose design he wants from an assortment which should be available.	
B. Cutting and Image	The student will be able to transfer a design on metal which has been covered with acid resistant.	Discussion--demonstration and safety aspects of handling acid resistant will be brought out.	
C. Making an Etching	The student will be able to etch metal.	Safety: (1) The following protective clothing should be worn: rubber apron, gloves, and safety goggles.	(2) Ch. 9

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
		(2) Care should be taken not to breathe the fumes. (3) Proper ventilation is necessary when mixing and etching is done. (4) Etching mordants may be used to supplement acids. (5) Solutions for etching should be used only in rubber, glass, or ceramic trays.	
D. Printing the Image on the Appropriate Stock	The student will be able to print an image on the proper stock.	The instructor will prepare job sheets which would go through the whole process of intaglio printing.	
VIII. Screen Process			
A. Fabrics	Student will be able to identify the types of fabrics, mesh sizes, and uses.	Discussion	(2) Ch. 6 (6) Ch. 2
B. Inks	Student will be able to list the solvents and uses for water base, oil base, and lacquer inks.	Discussion	
C. Methods of preparing the stencil	Student will be able to identify the various methods of preparing the stencil--Block out, tusche, hand cut (lacquer and water base) and photographic	Discussion	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	(direct and transfer).		
	Student will be able to recall safety procedures in handling of silk screen supplies and equipment.	Discussion	
D. Preparing a screen	Student will be able to assemble a frame, stretch the fabric, and remove sizing in preparation for attaching the stencil.	Demonstration Student will prepare a screen for his own use.	(6) Ch. 3
E. Preparing the stencil	Student will be able to prepare a stencil using the block out, tusche, and hand cut film methods.	Demonstration Student to do activities using these three methods.	(6) Ch. 7, 9
F. Block Out	The student will be able to list the materials and methods used in block out. The student will be able to block out the background of a screen.	Demonstration, Discussion	(6) Ch. 2
G. Printing the design	The student will be able to print on both paper and fabric using the proper technique with the squeegee.	Discussion, Demonstration	
H. Clean Up	The student will be able to list the proper solvents to use for the ink used and will be able to properly clean a screen.	Discussion, Demonstration	(6) Ch. 14

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
I. Design Removal	The student will be able to remove a stencil from a screen in preparation for screen reuse.	Discussion, Demonstration	
J. Careers in Screen Printing	The student will be able to list occupations related to the screen industry.	Discussion, Guest Speaker	Guidance library
IX. Duplicators			
A. Mimeograph Machine	The student will be able to demonstrate stencil making and the operation of the mimeograph machine.	Discussion, demonstration and student participation in the operation of the machine.	
B. Ditto Machine	The student will be able to make a master copy and operate the ditto machine.		
C. Hot Stamping	The student will be able to use the hand pallet.	Students will be given the opportunity to heat the hand pallet on a hot plate and do a stamping and be cautioned not to touch heated hand pallet.	(2) Ch. 5
X. Photography			
A. History	The student will be able to identify the more important innovations in the field.	Discussion	(4) Ch. 2

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
B. Kinds of Photography	The student will be able to differentiate between still, movie, and microscopic photography.	Discussion	
C. Camera	The student will be able to identify the types of camera, give the uses, advantages, and disadvantages of each.	Discussion, illustration	(8) Ch. 2
D. Sensitized Materials			
1. Films	Students will be able to identify the parts or layers comprising film. Student will be able to define orthochromatic and panchromatic film.	Discussion	
2. Papers	Student will be able to list the characteristics of contact papers, enlarging papers, and lithographic proofing papers.	Discussion	
E. Exposing and Processing film	The student will be able to recall the hazards in handling darkroom chemicals.	Discussion	
1. Lithographic camera	The student will be able to make a line exposure for both a same size and enlargement	Demonstration	

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	negative. He will be able to: (1) set shutter timer (2) set lense aperature (3) focus the camera (4) load the camera (5) make the exposure Student will be able to prepare the necessary chemicals, develop, stop, fix, wash and dry negative.	Student will expose and process 2 negatives -- a same size and an enlargement (may be covered as part of basic offset).	(4) Ch. 8, 11
2. Non-adjustable camera	Student will be able to list basic tips for making good pictures.	Discussion	(2) Ch. 11
	Student will be able to load camera and expose a roll of film.	Discussion, Demonstration	
	Student will be able to load the roll film tank, select chemicals, develop, stop, fix wash, and dry a roll of film.	Discussion, Demonstration Student is to expose and process one roll of film.	
F. Printing the Picture	The student will be able to make contact and projection prints using the proper equipment.	Discussion, Demonstration	
	The student will be able to prepare the processing trays,	Student is to make 'gang' contact print of his roll and enlargements	(2) Ch. 11

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	develop, stop, fix, wash, and dry his prints.	of his choice.	
G. Career in Photography	Student will be able to list the occupations in the field of photography: (1) Camera Industry (2) Chemical Industry (3) Supply Houses (4) Camera Stores (5) Studios (6) Printing Industry (7) Government (8) Private	Discussion, Resource Personnel	Guidance library
H. Laws Affecting Photography	The student will be able to explain the laws affecting photography: (1) Model Release (2) Obscene (3) Counterfeiting (4) Seditious Literature	Discussion, illustration, resource personnel	
XI. Basic Bindery			
A. Folding	Student will be able to demonstrate the basic paper folds using a bone folder and be aware of the many different sizes and designs of commercial-type folders.	Discussion, demonstration and student practice using bone folder.	Kagy Unit 10 Carlsen Ch. 7

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
B. Drilling	Student will be able to operate a paper drill and purposes for which paper is drilled.	Discussion, demonstration and student operation of drill.	Kagy Unit 10
C. Padding	Student will be able to jog, press, apply padding cement and trim pads to desired sizes.	Discussion, demonstration and individual activities to provide each student with a note pad.	
D. Stitching	Student will be able to identify the various methods of stitching with large power machines; and, be able to stitch with several hand models. Student will be able to name the safe practices of using staplers and stitchers.	Discussion, demonstration and individual usage of machines.	
E. Signature & Case Binding	Student will be able to sew sheets together by hand, make end sheets, make a hard cover, and case the book in the cover.	Discussion, demonstration, and individual operations performed by students.	Kagy Unit 10 Carlsen Ch. 7
XII. Paper			
A. Manufacturing	Student will be able to explain the paper making process and know the raw materials used in the process.	Discussion, audio visuals, demonstration, class discussion.	Polk Ch. 18

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	Student will be able to make paper sample.	Student will perform basic paper making process.	Kagy Unit 6
B. Paper Stock	Student will be able to identify paper by: (1) Weight (2) Grain (3) Finish (4) Content	Discussion, demonstration, illustrations. Student will assemble a paper sample swatch kit and correctly label.	
C. Safe Practices	Student will identify the hazards presented when handling and cutting paper.	Discussion, and demonstration	Polk Ch. 18
	Student will be able to demonstrate proper procedure to job paper and cut paper using safe methods.	Discussion, demonstration, review test safety	(11) p.p. 24-28
D. Paper Cutting	Student will be able to name the standard size as set by the paper industry. Also, student will be able to determine how to cut various sizes of paper from standard stock with a minimum of waste. Student will be able to identify paper cutters by size, and power application:	Discussion, demonstration, review test safety: (1) Student will perform layout exercise for a practice cut. (2) Student will operate safely and properly the paper cutter while performing his practice cut.	Polk Ch. 18

COURSE: GRAPHIC ARTS TECHNOLOGY

TOPIC OUTLINE	PERFORMANCE OBJECTIVES	SUGGESTED ACTIVITIES	RESOURCES
	(1) Manual (2) Electric Power (3) Hydraulic Power		

GRAPHIC ARTS TECHNOLOGY

Resource Materials

The following lists of resource materials are by no means complete nor exhaustive. They merely represent a compilation of the best and most available materials known and used by the members of the committee.

(1) Advanced Camera Techniques--Eastman Kodak Co., Rochester, New York, 1972

(2) Carlsen, Darvey, Graphic Arts, Charles A. Bennett Co., Peoria, Illinois, 1958

(3) Cleeton, Glen and Pitkin, Charles, General Printing, McKnight Publishing Co., Bloomington, Illinois

(4) Cogoli, John E., Photo Offset Fundamentals, McKnight Publishing Co., Bloomington, Illinois, 1973

(5) Composition, Eastman Kodak Co., Rochester, New York

(6) Eisenberg, James and Kafka, Francis J., Silk Screen Printing, McKnight Publishing Co., Bloomington, Illinois, 1957

(7) Kauch, R. Randolph, Graphic Arts Procedures--Basic, American Technical Society, Chicago, Illinois, 1965

(8) McCoy, Robert A., Practical Photography, McKnight Publishing Co., Bloomington, Illinois, 1959

(9) Polk, Ralph and Polk, Edwin W., Practice of Printing, Charles Bennett Co., Peoria, Illinois, 1964

(10) Local newspaper office

(11) Safety in Industrial Arts Education for Louisiana Schools, Bulletin No. 1203, "Graphic Arts Equipment," p. 24-28, Louisiana State Department of Education, 1971

NOTE: The entries in this section are numbered for the purpose of reference. The numbers listed here correspond to the numbers in parentheses located within the text of this publication in sections entitled "Resource Materials."